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POWER SUPPLY

OFFICIAL RECORDS STATION
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FACILITIES

INSTRUCTION MANUAL

kepco®

131-38 SANFORD AVENUE • FLUSHING, N. Y. 11352
Area Code 212 IN 1-7000 • TWX # 212-539-6623

PO # 693898-9914

SERIES CONNECTION

Kepco Voltage Regulated Power Supplies can be connected in series for increased voltage, provided the specified limits on the voltage to chassis are not exceeded. When series connected, supplies should be protected by means of a semiconductor diode, reverse-connected across the output terminals of each power supply. The peak reverse voltage (PRV) rating of this diode should be chosen to be at least as large as the voltage rating of the supply to which it is connected. the forward (continuous) current rating of the diode should be capable of carrying the largest short circuit current of the series inter-connected supplies.

REGULATED POWER SUPPLIES

kepco®

INSTRUCTION MANUAL PO# H-693898-991
BC# 536395 THRU
536398

MODULAR DC
POWER SUPPLY Job # 760504

MODEL SM 75-8M

SERIAL NO. .....

The Kepco equipment described in this instruction manual is of proprietary design, covered by one or more of the following United States patents, or by patents pending:

2,992,379	3,092,757
2,992,386	3,112,439
3,028,538	3,128,423
3,056,905	3,131,344
3,088,053	

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PB:is
32/65

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SPECIFICATIONS AND CONTROLS FOR MODELS SM 75-8 AND SM 75-8M

I. ELECTRICAL AND PHYSICAL SPECIFICATIONS:

....DC OUTPUT VOLTAGE:
0-75 volts DC, continuously variable.

....DC OUTPUT CURRENT:
0-8 amperes, continuous duty.

....AC INPUT:
105-125 volts, 60 $\pm$ 1 cps; 10.0 amperes (max.)

....REGULATION:
LINE: 0.01% output voltage change for 105-125 v ac line variation at any output voltage within the specified range.

LOAD: 0.05% or 1 millivolt output voltage change (whichever is greater) for NO LOAD to FULL LOAD change at any output voltage within the specified range.

....RIPPLE: Less than 1 millivolt rms.

....STABILITY: Output varies less than 0.05% or 3 millivolts (whichever is greater) over a period of 8 hours after warmup. Measured at constant line voltage, load and ambient temperature.

....OUTPUT IMPEDANCE:
Less than 0.005 ohm from DC to 100 cps.
Less than 0.005 ohm from 100 cps to 1 kc.
Less than 0.06 ohm + 0.5 μh effective series inductance from 1 kc to 100 kc.

....RECOVERY TIME: 50 microseconds.

....TEMPERATURE CEOFFICIENT:
Output voltage changes less than 0.05% per degree C.

....AMBIENT OPERATING TEMPERATURE:
-20°C to +50°C maximum. Protective circuit turns unit off should an over-temperature condition occur. Reset with power on-off switch.

....STORAGE TEMPERATURE:
-40°C to +85°C.

.... DIMENSIONS:
Height 8-3/4", Width 19", Depth 13-7/8" behind panel.

.... COLOR:
Kepco Standard Gray Hammertone.

.... PANEL METERS: (applies only to Model SM 75-8M)
Voltmeter: 0-80 volts, 2-1/2".
Ammeter: 0-8 amperes, 2-1/2".

II. TERMINALS AND CONTROLS -

- ON FRONT PANEL:

.... DC OUTPUT and GROUND binding posts, clearly marked. Output terminals isolated from chassis; either positive or negative terminal may be grounded.

.... VOLTAGE CONTROL, continuously variable, for setting output voltage.

.... POWER ON-OFF SWITCH.

- AT REAR OF UNIT:

.... DC OUTPUT and GROUND binding posts, clearly marked; connected internally to respective front panel binding posts.

.... REMOTE ERROR SENSING binding posts provide means of connecting output to maintain specified regulation directly at remote load terminals. (See Section C)

III. PROTECTIVE FEATURES -

.... POWER INPUT FUSE (ac) on front panel.

.... DC OUTPUT FUSE on front panel.

.... REFERENCE FUSE (ac) for internal circuitry.

.... OVERLOAD PROTECTION:
Inherent current limiting action of Kepco "FLUX-O-TRAN" transformer permits momentary short circuit of output without damage to unit. Continuous overload or short circuit will open the DC OUTPUT FUSE.

.... OVER-TEMPERATURE PROTECTION:
Thermostat relay control turns unit OFF if temperature of PASS elements exceeds safe limit. Relay is reset by interrupting input power with ON-OFF switch on front panel, or by disconnecting line cord from power source.

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SECTION B

BRIEF THEORY:

Two circuit schematic drawings titled "POWER UNIT" and "CONTROL UNIT" are included in the Reference Index of this instruction manual. These drawings contain designations corresponding to the capitalized terms in the following discussion.

Some basic functional relationships in this power supply are illustrated in block Diagram B-1 (Page B-2A).

The POWER UNIT includes:

DC SOURCES:

....MAIN SUPPLY - (consisting of a Kepco "Flux-O-Tran" transformer, full wave bridge rectifier, and capacitive filter) provides line regulated DC power for the output, via the PASS CIRCUITRY.

....AUXILIARY SUPPLIES: COLLECTOR SUPPLY (negative full wave rectified) for PASS CIRCUITRY driver stages not connected to MAIN SUPPLY; I_{CO} SUPPLY (full wave rectified) compensates for spurious biasing effects of collector leakage current; RETURN SUPPLY (full wave rectified) acts as leakage current path for series pass transistors and as bleed path to provide minimum operating current for pass transistors; CONTROL UNIT SUPPLY (full wave rectified).

PASS CIRCUITRY:

The power transistors which function as pass elements (i.e. are in series with the load) may be regarded effectively as variable resistors (or conductors) controlled by a CONTROL SIGNAL. The current "passed" by these elements is a function of the emitter-base bias. The CONTROL SIGNAL is applied to the base terminal; hence a negative CONTROL SIGNAL will aid the forward conduction of a PNP transistor while a positive CONTROL SIGNAL will reduce the forward conduction. In response to the CONTROL SIGNAL the pass elements effect a current and voltage distribution in the main DC loop which holds the output voltage constant.

The CONTROL UNIT includes:

REFERENCE CIRCUITRY:

The function of the REFERENCE CIRCUITRY is to maintain a precise, stable, voltage standard for the COMPARISON AMPLIFIER.

COMPARISON AMPLIFIER:

The COMPARISON AMPLIFIER is essentially a series of cascaded transistor amplifiers which boost the differential error signal produced in the COMPARISON BRIDGE to a level sufficient to drive the PASS CIRCUITRY. The COMPARISON AMPLIFIER is connected across the COMPARISON BRIDGE from the junction of the VOLTAGE CONTROL and the REFERENCE RESISTANCE to the junction of the REFERENCE DIODE and the negative output terminal (See Diagram on Page B-2A). This arrangement is similar to that of a null galvanometer across a Wheatstone bridge. Unbalance in the COMPARISON BRIDGE is amplified to produce a CONTROL SIGNAL of suitable magnitude and phase to effect corrective action by the PASS CIRCUITRY.

COMPARISON BRIDGE: (See Diagram B-2, Page B-2A).

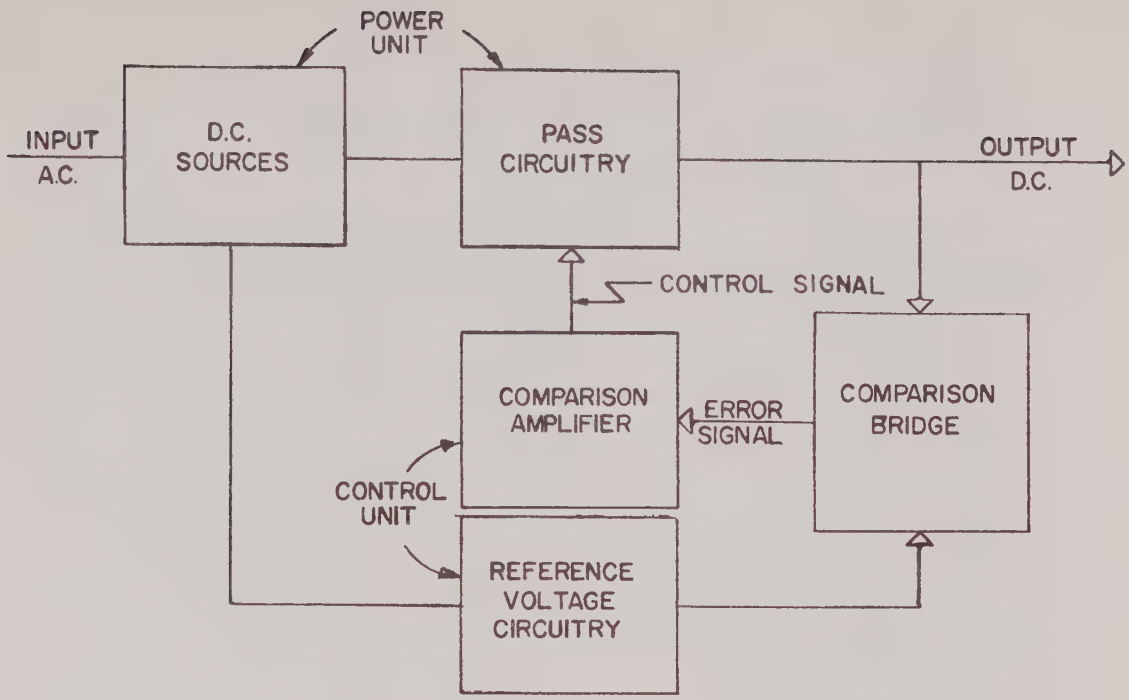
This bridge circuit implements the comparison between the OUTPUT VOLTAGE and the REFERENCE VOLTAGE. The signal produced by the comparison drives the COMPARISON AMPLIFIER.

Balance occurs in the Comparison Bridge when the following ratios are equal:

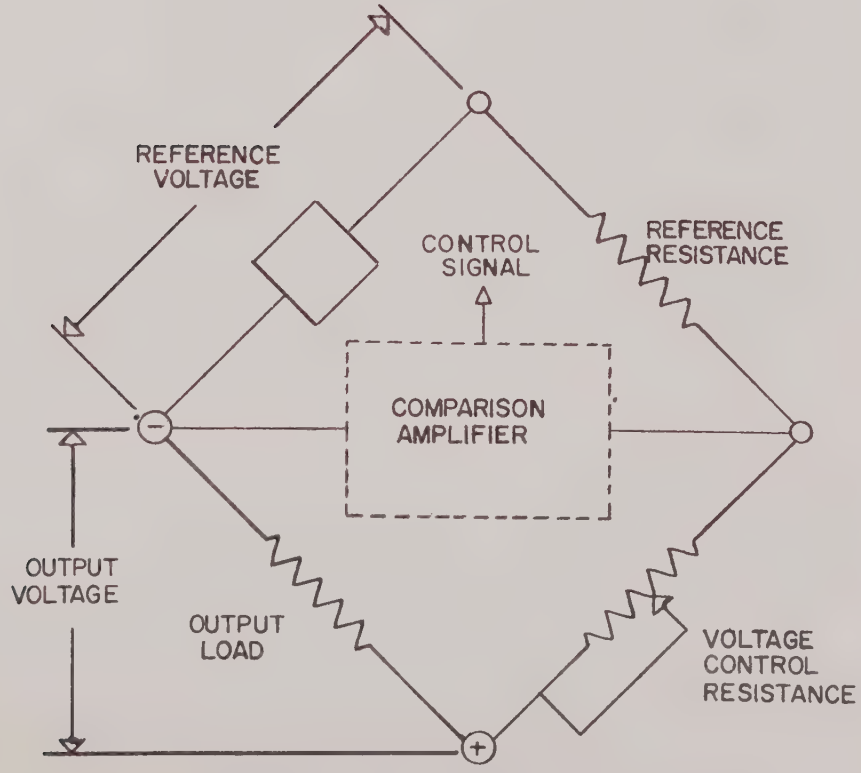
$$\frac{\text{Output Voltage}}{\text{Voltage Control Resistance}} = \frac{\text{Reference Voltage}}{\text{Reference Resistance}}$$

When, for example, the Comparison Bridge is unbalance by a decreasing output voltage drop across the load, it gives rise to a negative signal at the base of the COMPARISON FOLLOWER in the COMPARISON AMPLIFIER circuit. This signal is amplified in cascade and communicated to the pass elements as a negative base input aiding their forward conduction and consequently increasing the output voltage.

A bridge unbalance caused by an increasing output voltage produces, of course, a chain of oppositely biased circuit responses which reduce the voltage across the load.



(DIAGRAM B-1) *VOLTAGE REGULATED POWER SUPPLY*



(DIAGRAM B-2) *COMPARISON BRIDGE*

This power supply is shipped without any internal packing material; and may be put into operation immediately. It is designed for rack and for bench use. Carrying handles are provided on front panel.

....INTIAL "TURN - ON" PROCEDURE:

1. Adjust VOLTAGE CONTROL to approximate mid-range position.
2. With POWER ON-OFF switch set in "OFF" position, connect line cord to 115 v ac, 60 cps input power. If outlet is not polarized use 3 to 2 - prong adapter supplied with unit.
3. Set POWER ON-OFF switch to "ON" position.
4. Adjust VOLTAGE CONTROL to obtain desired output voltage.

....GENERAL OPERATION:

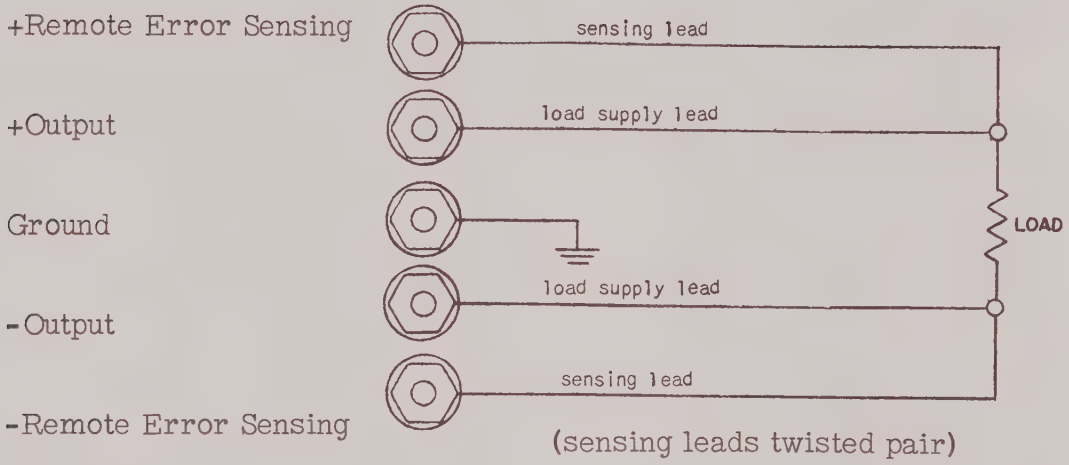
1. Once it has been determined that the unit is functioning satisfactorily, it is subsequently unnecessary to follow the INITIAL TURN-ON PROCEDURE.
2. The VOLTAGE CONTROL may be left fixed at any setting and the power turned "ON" and "OFF" without any harmful effects.

....MAINTENANCE AND REPAIR:

1. Under normal operating conditions, no mechanical maintenance of any kind should be required. Conservatively rated electrical components assure long trouble-free operating life.
2. Exceptional component accessibility, provided by resistor board construction and plug-in sub-assemblies, facilitates servicing, should it be required. It is emphatically recommended that trouble-shooting be handled by personnel highly familiar with transistor circuitry, - preferably with experience in closed-loop designs.
3. This unit should not be returned to the manufacturer without proper authorization and shipping instructions. In any correspondence with the factory regarding repair, the model, serial number, and symptoms of malfunction must be included.

REMOTE ERROR SENSING OPERATION

(Terminal Connections)



(sensing leads twisted pair)

(Procedure)

1. With AC input power disconnected, remove jumpers between plus and minus Output terminals and Remote Error Sensing terminals on the rear of the unit.

2. Using twisted pair wire, connect sensing leads from positive and negative Remote Error Sensing terminals to the load (observing polarities).

3. Using twisted pair wire, connect load supply leads from positive and negative Output terminals.

IMPORTANT NOTE: This unit should not be operated with Remote Error Sensing if the voltage drop across the load supply leads exceeds 0.5 volt (maximum) per lead at maximum rated output current.

kepco inc. REPLACEMENT PARTS LIST

POWER SUPPLY MODEL SM 75-8M, -8MX Code 7-2365

SCHEMATIC NO.	QTY.	DESCRIPTION	MFRS. NAME & PART NO. (See Note)	KEPCO PART NO.
B201	1	Fan, Venturi	Rotron Mfg. Muffin Fan	149-0013
C201-203, 207	4	Capacitor, Electrolytic, Can 4 K µf, 125 v	Industrial Cond. 10B961	117-0243
C204	1	Capacitor, Paper, Can 8 µf, 660 VAC	General Electric 49F6040	117-0393
C206	1	Capacitor, Mylar 2 µf, 200 v, 10%	Hopkins Eng. 2P2M	117-0129
C301	1	Capacitor, Mylar, Pigtail 0.033 µf, 200 v, 10%	TRW 663UW	117-0347
C302	1	Capacitor, Electrolytic, Pigtail 10 µf, 150 v	Industrial Cond. 10B912RM	117-0147
C303	1	Capacitor, Electrolytic, Pigtail 100 µf, 150 v	Industrial Cond. 10B916RM	117-0140
C401	1	Capacitor, Electrolytic, Pigtail 350 µf, 50 v	Industrial Cond. 1B844	117-0114
C402	1	Capacitor, Electrolytic, Pigtail 100 µf, 200 v	Industrial Cond. 20B317RM	117-0222
C403, 404	2	Capacitor, Electrolytic, Pigtail 500 µf, 50 v	Industrial Cond. 1B1163RM	117-0221
C405, 406	2	Capacitor, Ceramic 0.05 µf, 500 v, 20%	Sprague Electric 36C142A1	117-0163
C502	1	Capacitor, Mylar 0.1 µf, 600 v, 20%	Good All 620S10406W	117-0068
CR201	1	Rectifier Assembly, Stack Type Includes the following:	Kepco Inc.	124-0271
	2ea.	Rectifier, Silicon	Motorola 1N3210	124-0165
	2ea.	Rectifier, Silicon	Motorola 1N3210R	124-0166
CR301, 403, 404	3	Rectifier, Silicon, Pigtail	Semicon Inc. SM-140	124-0028
CR401, 402, 405-408	6	Rectifier, Silicon, Pigtail	Columbus CEC-105	124-0133
F101	1	Fuse, Instantaneous 15 a	Bussman ABC-15	141-0010
F102	1	Fuse, Slo Blo 15 a	Bussman MDL-15	141-0037
F401	1	Fuse, Instantaneous 2 a	Bussman AGC-2	141-0012

REPLACEMENT PARTS MAY BE ORDERED FROM KEPCO, INC. ORDERS SHOULD INCLUDE KEPCO PART NUMBER AND DESCRIPTION

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SCHEMATIC NO.	QTY.	DESCRIPTION	MFRS. NAME & PART NO. (See Note)	KEPCO PART NO.
*M101	1	Meter 0-80 v, DC, 2 1/2"	General Electric 8DW91V23IAS2	135-0189
*M102	1	Meter 0-8 a, DC, 2 1/2"	General Electric 8DW91A321BV2	135-0195
PL101	1	Pilot Light	General Electric NE-51	153-0024
Q301,302	2	Transistor, Silicon, PNP	Hughes	**119-0055
R201	1	Resistor, Fixed, Power, Strip 1 K ohm, 40 w, 5%	Ward Leonard 40S1000	115-0513
R202	1	Resistor, Fixed, Power, Strip 5 ohm, 20 w, 5%	Ward Leonard 20S5WL	115-0725
R203	1	Resistor, Fixed, Power, Strip 15 ohm, 20 w, 5%	Ward Leonard 20S15	115-0964
R204	1	Resistor, Fixed, Power, Strip 500 ohm, 40 w, 5%	Ward Leonard 40S500	115-0201
R205	1	Resistor, Fixed, Power, Axial 5 K ohm, 5 w, 5%	Ward Leonard 40S500	115-0232
R206-208	3	Resistor, Fixed, Power, Ribbon 0.25 ohm, 40 w, 5%	Hardwick Hindle HHZB35-0.3 ohm, 59.W	115-1017
R209	1	Resistor, Variable, WW 10 K ohm, 2.5 w, 5%	General Electric 973-N	115-0894
R210,211	2	Resistor, Fixed, Power, Axial 50 ohm, 3 w, 5%	Ward Leonard 3X50	115-0641
R212	1	Resistor, Fixed, Molded 33 ohm, 1/2 w, 10%	Allen Bradley EB3301	115-0681
R213	1	Resistor, Fixed, Molded 10 ohm, 1/2 w, 10%	Allen Bradley EB1001	115-0502
R301	1	Resistor, Fixed, Power, Axial 40 ohm, 3 w, 5%	Ward Leonard 3X40	115-0875
R302	1	Resistor, Fixed, Molded 220 ohm, 1/2 w, 5%	Allen Bradley EB2215	115-0470
R303	1	Resistor, Fixed, Molded 4.7 K ohm, 1/2 w, 5%	Allen Bradley EB4725	115-0350
R304	1	Resistor, Fixed, Molded 1 K ohm, 1 w, 10%	Allen Bradley GB1021	115-0066
R305	1	Resistor, Fixed, Power, Axial 200 ohm, 5 w, 5%	Ward Leonard 5X200	115-0905
R306	1	Resistor, Fixed, Molded 22 ohm, 1/2 w, 10%	Allen Bradley EB2201	115-0666
R307	1	Resistor, Fixed, Molded 330 K ohm, 1/2 w, 5%	Allen Bradley EB3345	115-0250

*Metered Models Only

**See Field Replacement Page

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SCHEMATIC NO.	QTY.	DESCRIPTION	MFRS. NAME & PART NO. (See Note)	KEPCO PART NO.
R308	1	Resistor, Fixed, Power, Axial 1 K ohm, 5 w, 5%	Ward Leonard 5X1000	115-0512
R309	1	Resistor, Fixed, Molded 100 K ohm, 1/2 w, 10%	Allen Bradley EB1041	115-0809
R320	1	Resistor, Fixed, Axial 2.5 K ohm, 3 w, 5%	Ward Leonard 3X2500	115-0469
RL201	1	Relay, Plug-In Type 3PDT	Kurman 26D3C	140-0040
S101	1	Switch, Toggle, SPST 15 a, 125 v	Carling Electric AA252-63XKEP2	127-0107
T201	1	Transformer, Flux-O-Tran	Kepco Magnetics	100-1182
T202	1	Transformer, Variable	Superior Electric Q117U	175-0398
T401	1	Transformer	Kepco Magnetics	100-1179B
	3	Pass Assembly 2CO.2/SP67A	Kepco Inc.	110-0117
		Includes the following:		
	2ea.	Resistor, Fixed, Power, Axial 0.2 ohm, 5 w, 5%	Ward Leonard 7/8" Y-0.2	115-0891
	2ea.	Transistor, PNP	Motorola	**119-0036
	1	Pass Assembly 2CO.2TC/SP67A	Kepco Inc.	110-0119
		Includes the following:		
	2ea.	Resistor, Fixed, Power, Axial 0.2 ohm, 5 w, 5%	Ward Leonard 7/8" Y-0.2	115-0891
	1ea.	Switch, Thermostat N.C.	Chatham Controls DRSCORP73C	127-0093
	2ea.	Transistor, PNP	Motorola	**119-0036
	1	Driver Assembly AO/441-10	Kepco Inc.	110-0114
		Includes the following:		
	1ea.	Transistor, PNP	Delco	**119-0016

**See Field Replacement Page

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kepco inc. ® REPLACEMENT PARTS LIST

PRINTED CIRCUIT BOARD ASS'Y PCB#1 MODEL SM 75-8M Code 9-864

SCHEMATIC NO.	QTY.	DESCRIPTION	MFRS. NAME & PART NO. (See Note)	KEPCO PART NO.
C1	1	Capacitor, Mylar, Pigtail 0.22 µf, 200 v, 20%	Good All 620S22402W	117-0107
C2	1	Capacitor, Ceramic 0.1 µf, 500 v, 20%	Sprague Electric 41C92	117-0087
C3	1	Capacitor, Electrolytic, Pigtail 25 µf, 25 v, 10%	Industrial Cond. 1B1063	117-0105
C4	1	Capacitor, Mylar, Pigtail 0.4 µf, 200 v, 10%	Hopkins Eng. P42MK	117-0128
CR1, 2	2	Rectifier, Silicon, Pigtail	Electronic Devices	124-0178
Q1, 3, 4, 5	4	Transistor, Silicon, NPN	General Electric	**119-0054
Q2, 6	2	Transistor, Silicon, PNP	Hughes	**119-0055
R1	1	Resistor, Fixed, Molded 100 ohm, 1 w, 10%	Allen Bradley GB1011	115-0002
R2	1	Resistor, Fixed, Molded 10 ohm, 1/2 w, 10%	Allen Bradley EB1001	115-0502
R3	1	Resistor, Fixed, Molded 4.7 K ohm, 1/2 w, 10%	Allen Bradley EB4721	115-0467
R4	1	Resistor, Fixed, Molded 240 ohm, 1/2 w, 5%	Allen Bradley EB2415	115-0484
R5	1	Resistor, Fixed, Molded 620 ohm, 1/2 w, 5%	Allen Bradley EB6215	115-0565
R6	1	Resistor, Fixed, Molded 300 ohm, 1/2 w, 5%	Allen Bradley EB3015	115-0783
R7	1	Resistor, Fixed, Molded 2.7 K ohm, 1/2 w, 10%	Allen Bradley EB2721	115-0560
R8	1	Resistor, Fixed, Precision 4 K ohm, 1 w, 5%	Tepro Electric TS1W	115-1637
R9, 10	2	Resistor, Fixed, Power, Axial 500 ohm, 3 w, 5%	Ward Leonard 3X500	115-0459
R11, 15	2	Resistor, Fixed, Precision 560 ohm, 1 w, 5%	Tepro Electric TS1W	115-1696
R12	1	Resistor, Fixed, Precision 13 K ohm, 1 w, 5%	Tepro Electric TS1W	115-1309
R13	1	Resistor, Fixed, Precision 1.8 K ohm, 1 w, 5%	Tepro Electric TS1W	115-1697
R14	1	Resistor, Fixed, Precision 750 ohm, 1 w, 3%	Tepro Electric TS1W	115-1247
R16	1	Resistor, Fixed, Molded 2.2 K ohm, 1/2 w, 10%	Allen Bradley EB2221	115-0466
R17	1	Resistor, Fixed, Molded 47 ohm, 1 w, 10%	Allen Bradley GB4701	115-0005

**See Field Replacement Page

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PRINTED CIRCUIT BOARD ASS'Y PCB#1 MODEL SM 75-8M Code 9-864

SCHEMATIC NO.	QTY.	DESCRIPTION	MFRS. NAME & PART NO. (See Note)	KEPCO PART NO.
R18	1	Resistor, Fixed, Power, Axial 10 ohm, 3 w, 5%	Hardwick Hindle 9/16 GA10 LTC	115-1160
R19	1	Resistor, Variable, Multiturn 1 K ohm, 1/2 w, 10%	Bourns 3067S-1-102	115-0739
R20	1	Resistor, Fixed, Molded 56 K ohm, 1/2 w, 5%	Allen Bradley EB5635	115-0255
RD1	1	Zener Diode	International Rect. 1N821	121-0041

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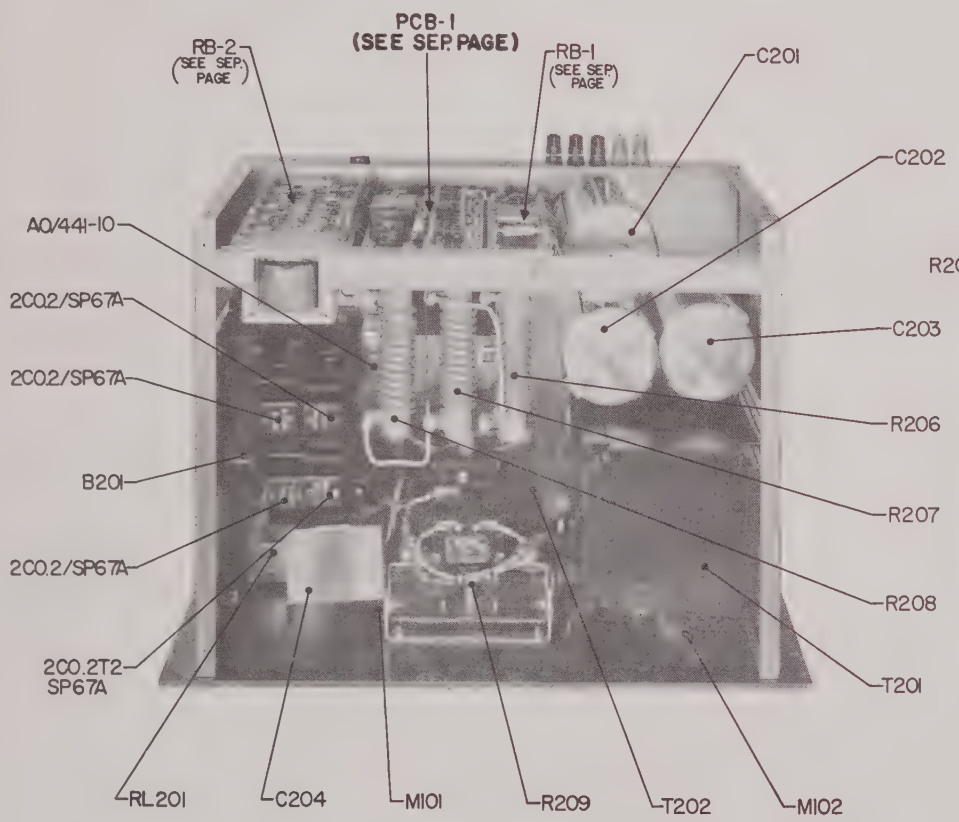
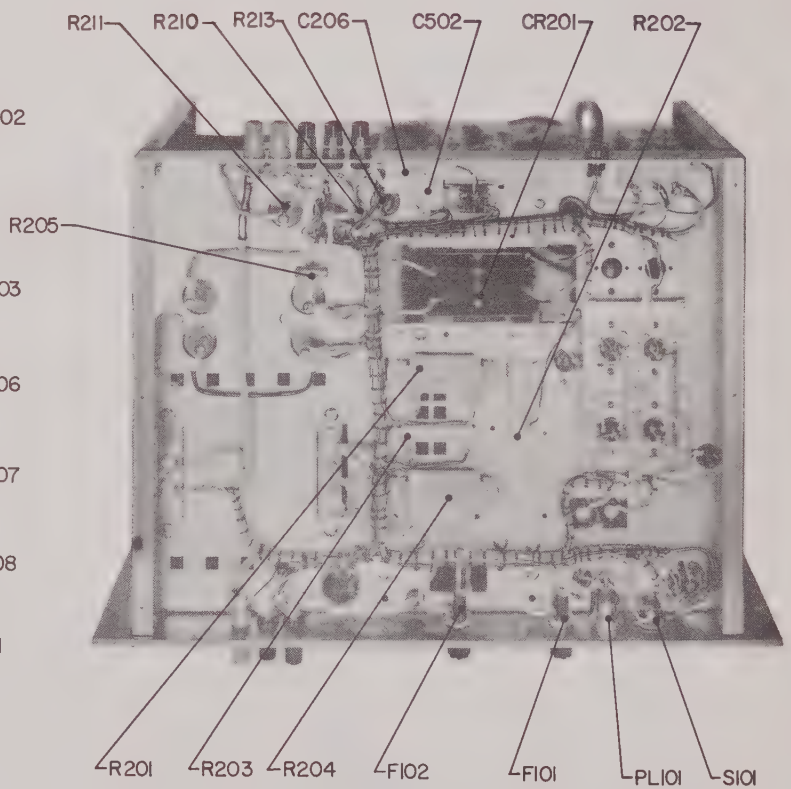
FIELD REPLACEMENT LIST

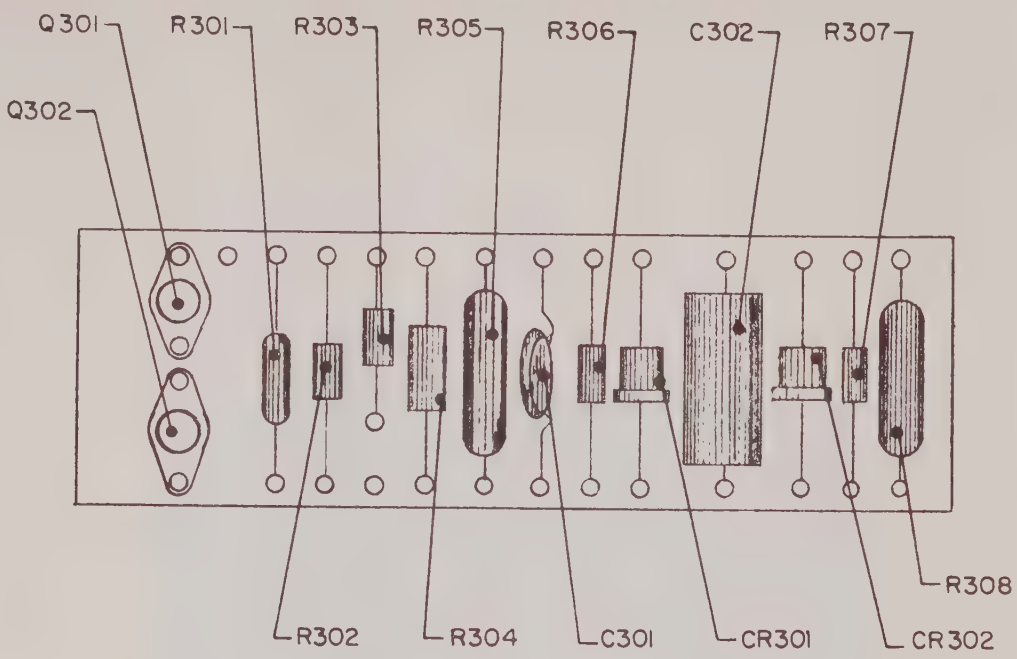
Kepco Part No.	Description	Recommended Replacement MFR.	MFR. No.
119-0016	Transistor, PNP	Delco	2N174
119-0020	Transistor, PNP	RCA	2N398A
119-0022	Transistor, PNP	Tung Sol	2N1707
		Texas Instrument	2N404
119-0024	Transistor, NPN	General Inst.	2N1605
		RCA, General Elec.	2N388
		Texas Instrument	
		Sylvania, Texas Instrument	2N1308
119-0034	Transistor, PNP	Delco	2N1172
		Hughes	2N1131A
119-0035, 0036,0037	Transistor, PNP	Motorola	2N1167
		Clevite	CTP 3553
119-0038	Transistor, NPN	Transitron	ST29
119-0048	Transistor, Unijunction	General Electric	2N1671A
119-0049	Transistor, PNP	Delco	2N669
119-0054	Transistor, NPN	General Electric	2N338
			2N336A
119-0055	Transistor, PNP	Hughes	2N1131A
119-0056	Transistor, NPN	General Electric	2N336A
119-0057	Transistor, PNP	Delco	DTG-1200
119-0059	Transistor, NPN	RCA	2N3053
119-0060	Transistor, NPN	RCA	2N3054
119-0061	Transistor, NPN	RCA	2N3055
119-0065	Transistor, PNP	Hughes	2N3225
119-0067	Transistor, PNP	Delco	DTG-2400
119-0068	Transistor, NPN	RCA	40250
119-0069	Transistor, NPN	RCA	40251
119-0070	Transistor, NPN	RCA	2N3442

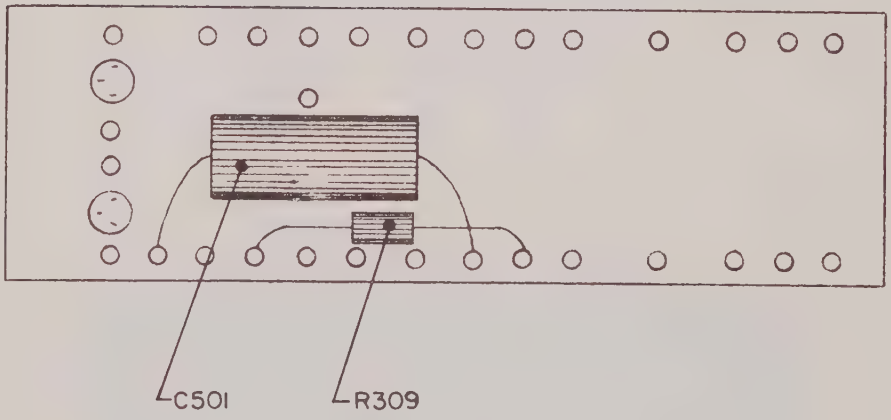




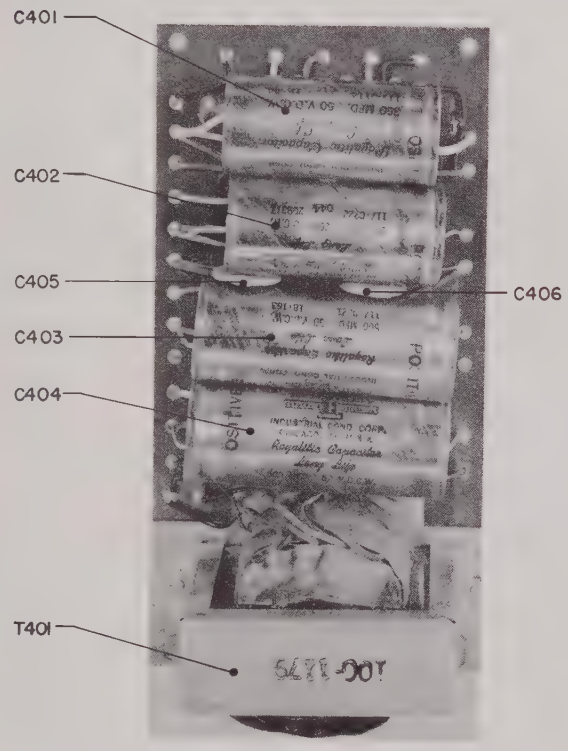
KEPCO INC.
FLUSHING NEW YORK

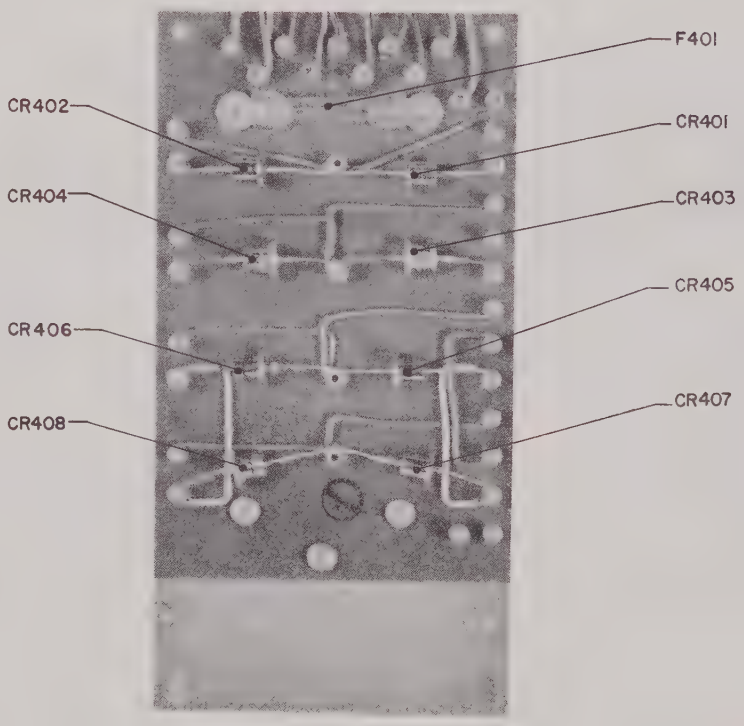
ITEM: POWER UNIT	DES 9-8-64
	APPD S.P.K.
MODEL SM-75-8	DFTM R.C.
DWG. No. C-M01095	CHKD T.D.





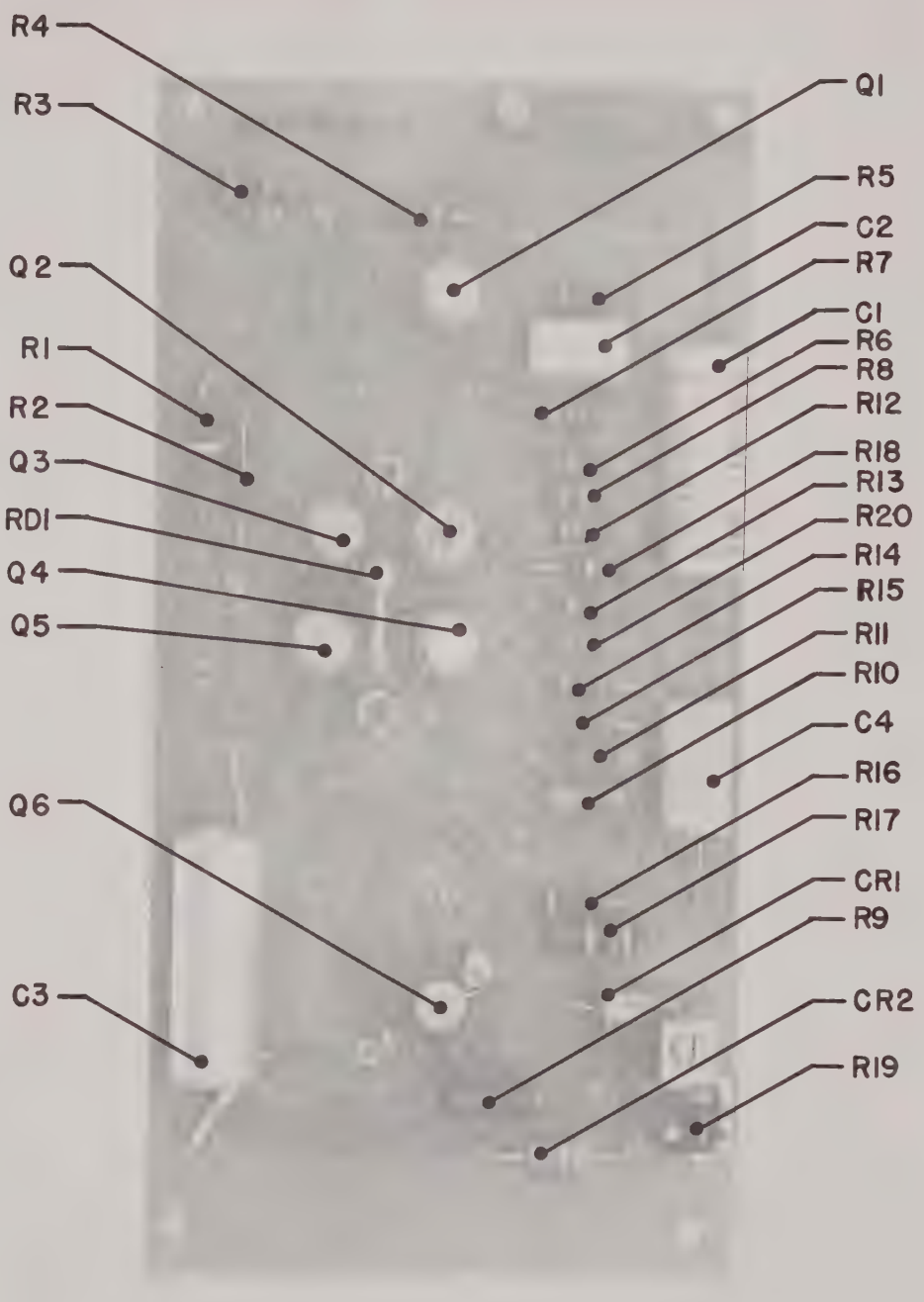
KEPCO LABORATORIES	
FLUSHING NEW YORK	
ITEM RB-1	DES. 3-6-61
	APPD
MODEL SM-75-8	DFTM R.C.
DWG. No. AM01092	CHKD





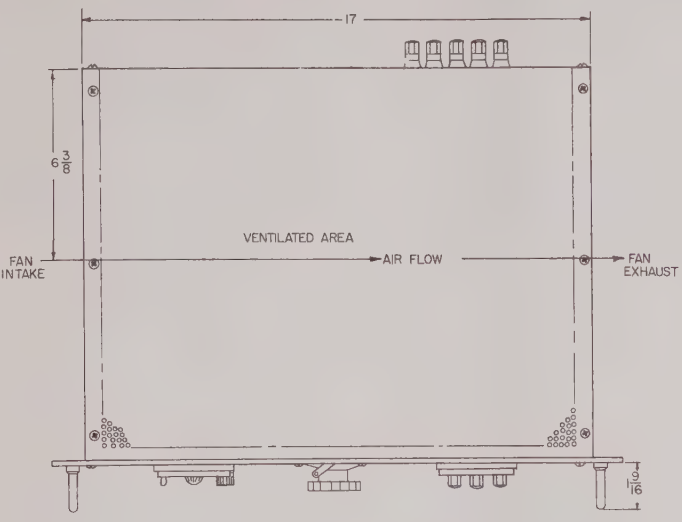
CORRECTIONS, IF ANY, APPEAR ON SHEET ATTACHED TO REAR COVER

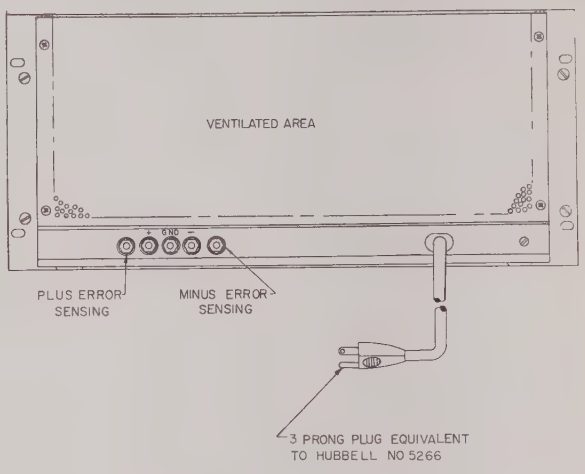
KEPCO INC.	
FLUSHING	NEW YORK
ITEM RB-2	DES. 1-3-61
	APPD
MODEL SM—— SERIES	DFTM M.CEA
DWG. No BM00923	CHKD

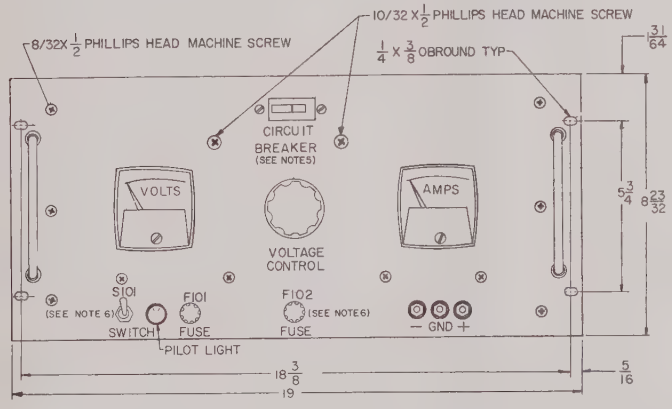


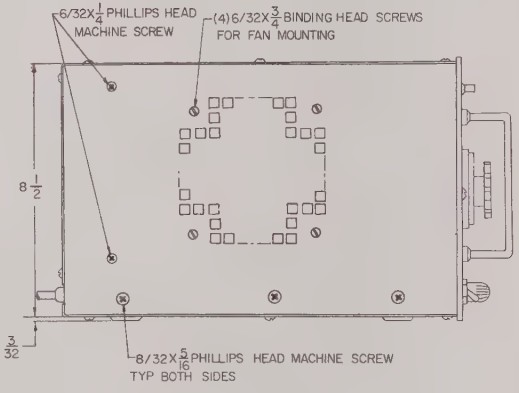
DRAWN	CHECKED	APPROVED	DATE
BP	KEC		9-1-64
MODEL NO. SM SERIES		PART NO.	SCALE NONE
TITLE PCB-1 COMPONENT LOCATION			DWG. NO. AM04602

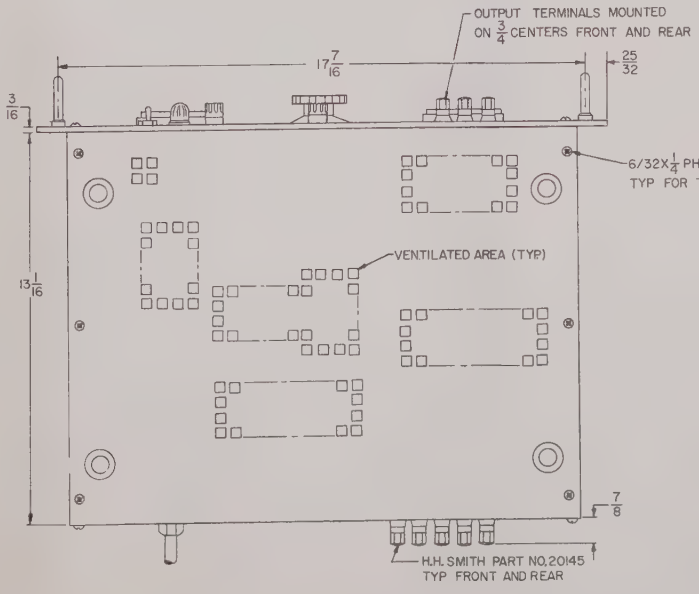
KEPCO INC.
FLUSHING, N.Y.








6/32X 1/4 PHILLIPS HEAD MACHINE SCREW
(4) 6/32X 3/4 BINDING HEAD SCREWS FOR FAN MOUNTING
8 1/2
3/32
8/32X 5/16 PHILLIPS HEAD MACHINE SCREW TYP BOTH SIDES


OUTPUT TERMINALS MOUNTED ON 3/4 CENTERS FRONT AND REAR
17 7/16
25/32
3/16
6/32X 1/4 PHILLIPS HEAD MACHINE SCREW TYP FOR TOP, BOTTOM AND REAR
VENTILATED AREA (TYP)
13 1/16
7/8
H.H. SMITH PART NO. 2014S TYP FRONT AND REAR

NOTES:

1-THIS DRAWING USED FOR MODELS SM14-30M, SM36-15M, SM75-8M, SM160-4M, SM325-2M.

2-MAT L, COVERS NO.16 COLD ROLLED STEEL, CADMIUM FINISH WITH A CHRONAK WASH, PANEL ALUM. ALLOY GRAY HAMMERTONE FINISH.

3-FUSE DATA

MODEL	FUSE SIZE F101	FUSE SIZE F102
SM14-30M	15 AMP	SEE NOTE 6
SM36-15M	15 AMP	20 AMP
SM75-8M	15 AMP	15 AMP
SM160-4M	15 AMP	6 AMP
SM325-2M	15 AMP	3 AMP

4-REFER TO KEPCO CATALOG FOR DETAILED SPECIFICATIONS.

5-CIRCUIT BREAKER USED ON SM14-30M ONLY.

6-S101 AND F102 ARE USED ON ALL UNITS LISTED ABOVE EXCEPT SM14 30M.

KEPCO INC
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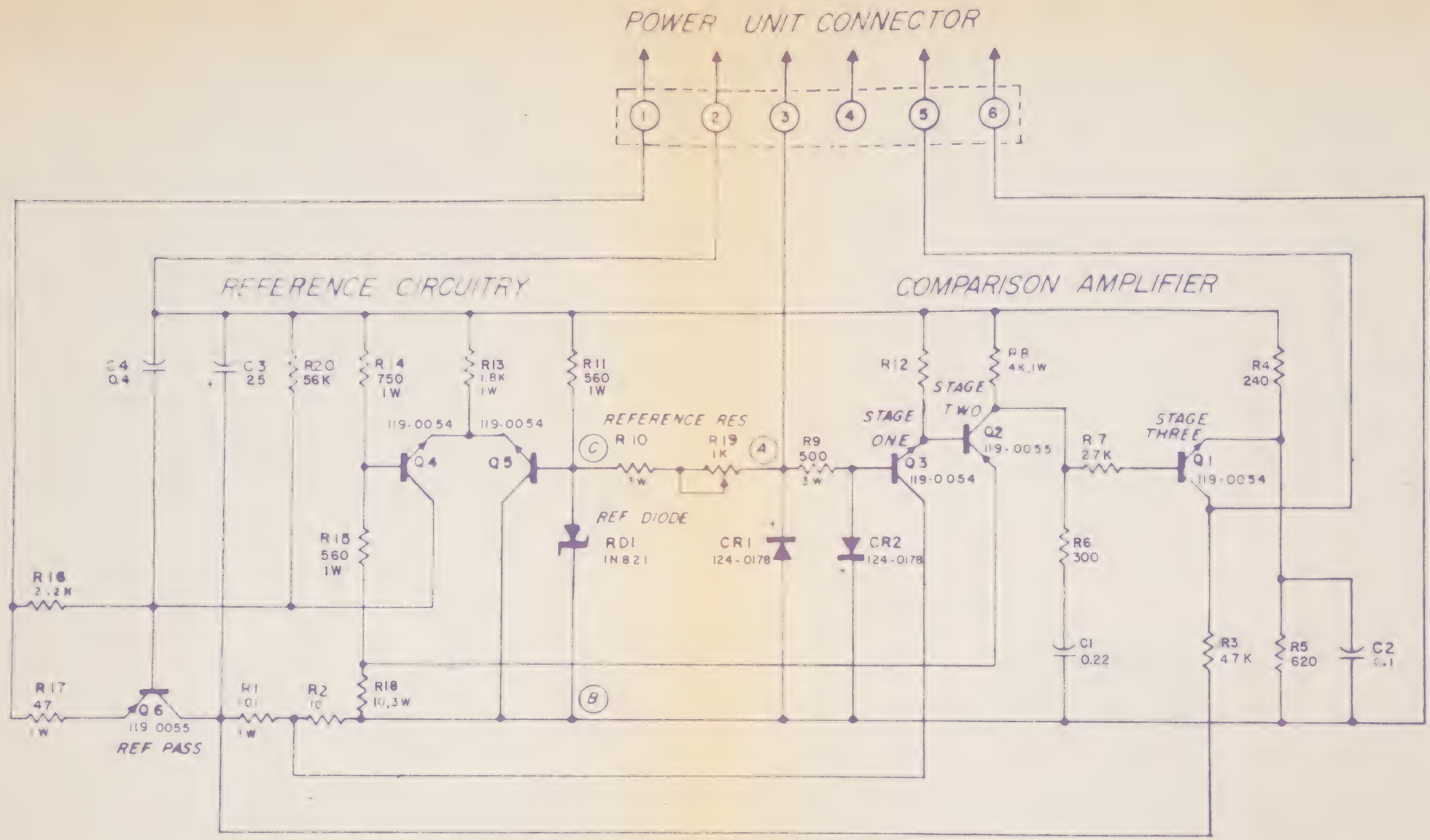
OUTLINE DRAWING

DRAWN	CHECKED	APPROVED	SIZE
BDP			A
SCALE		DWG NO	REV
SEE NOTE 1		EM04936	



NOTES:

1- ALL VOLTAGES TAKEN UNDER CONDITIONS SPECIFIED ON MAIN SCHEMATIC

2- ALL CAPACITOR VALUES ARE GIVEN IN MICROFARADS, RESISTOR VALUES IN OHMS, RATED 1/2 WATT UNLESS OTHERWISE NOTED. (K= 1,000 OHMS)

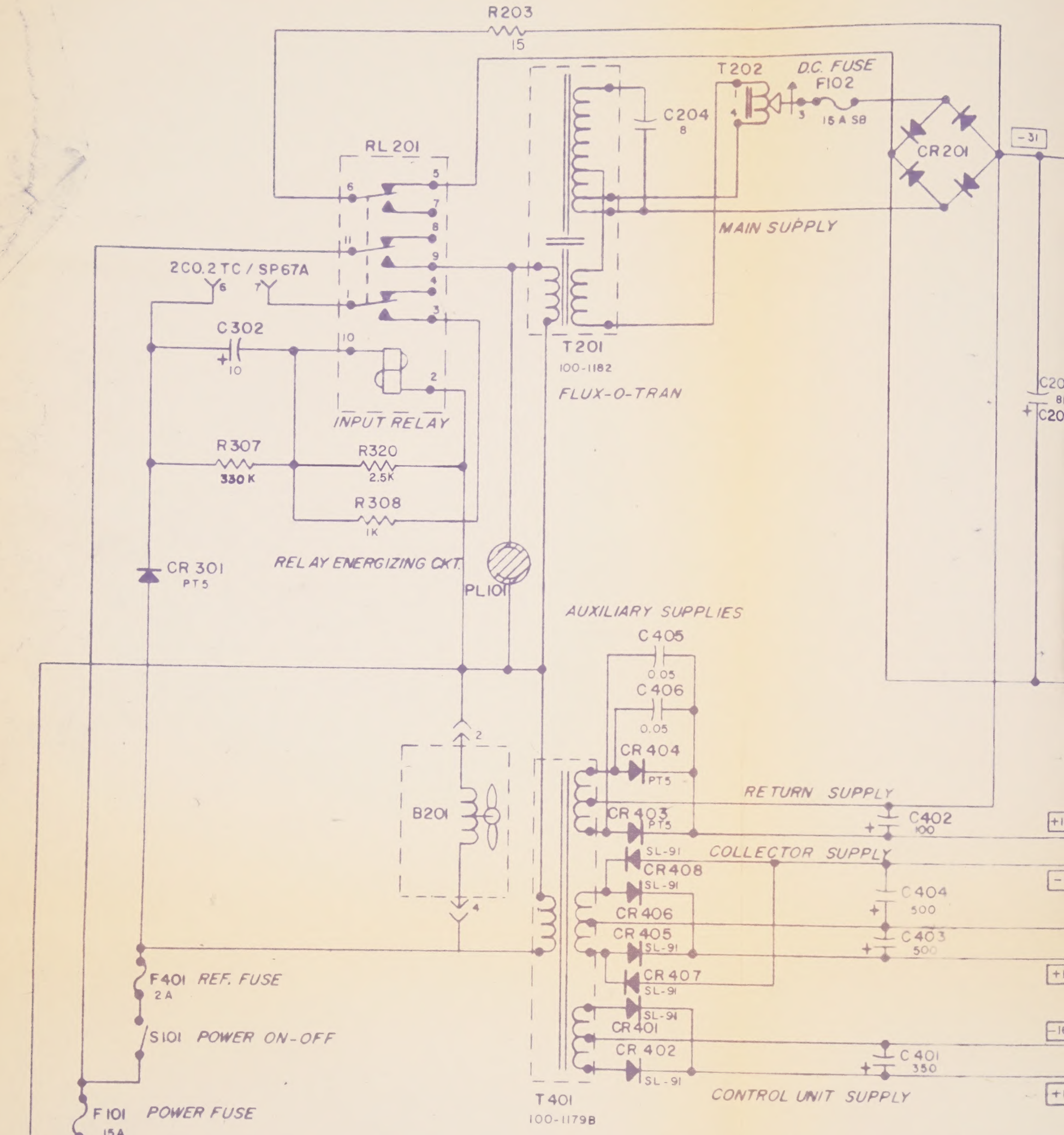
3- ORDER REPLACEMENT PARTS BY KEPCO PART NUMBER PROVIDED IN PARTS LIST SECTION.

KEPCO INC.
FLUSHING, N.Y.

TITLE: PCB 1 SCHEMATIC			
DRAWN: KS	CHECKED	APPROVED	DATE: 9-8-64
MODEL NO.: SM75-8M		PART NO	SCALE
DWG. NO: BM05033			

INPUT CONTROL

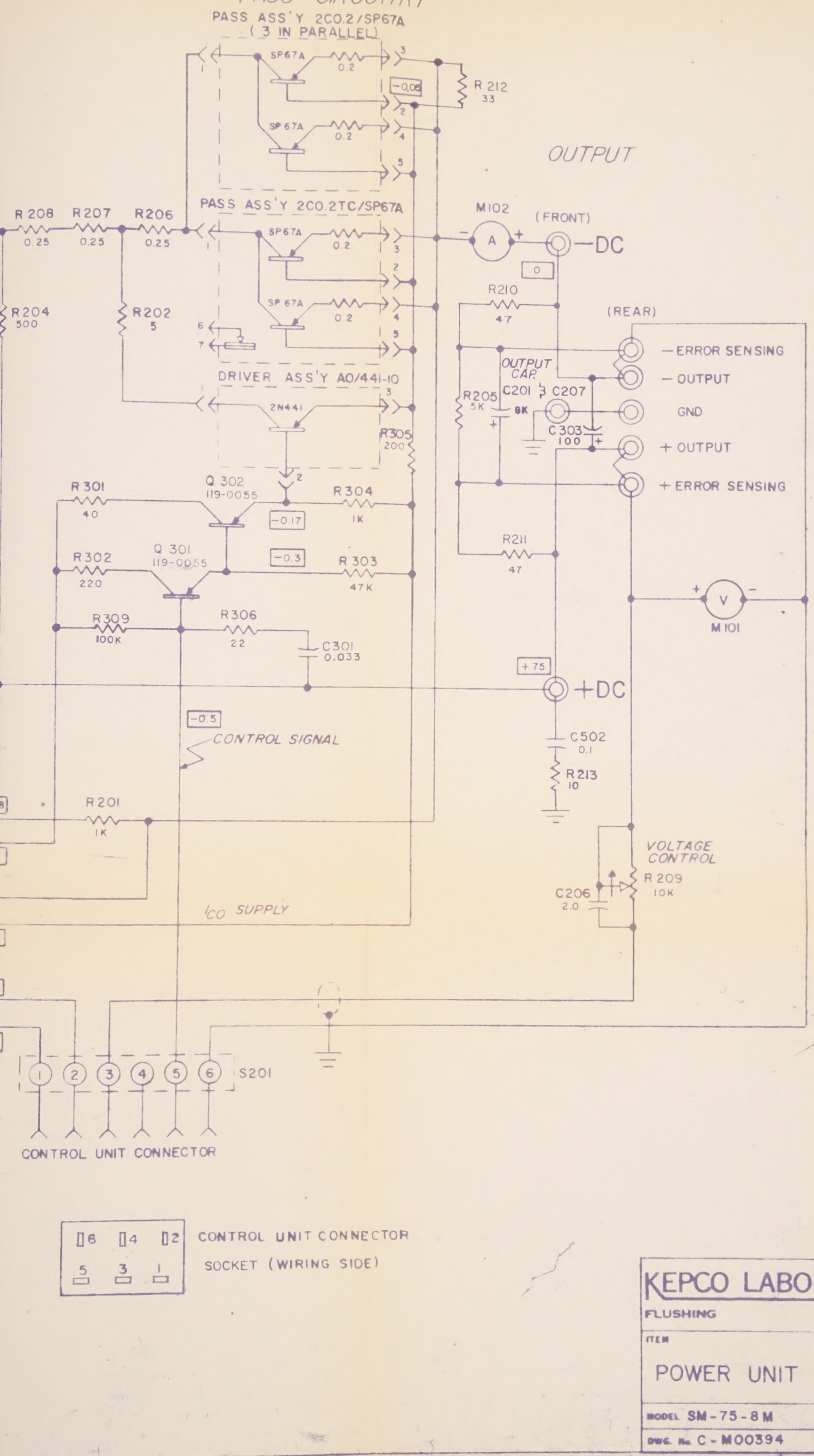
DC SOURCES



NOTE:

1. T202 GANGED TO R209.
2. ALL CAPACITOR VALUES ARE GIVEN IN MICROFARADS, RESISTOR VALUES IN OHMS, K=1000
3. ALL VOLTAGE READINGS TAKEN WITH 20,000 Ω/VOLT METER, WITH REFERENCE TO MINUS OUTPUT TERMINALS, UNDER THE FOLLOWING CONDITIONS:
   A. LINE = 115 V.A.C.
   B. D.C. OUTPUT = 75 VOLTS.
   C. OUTPUT CURRENT = ZERO.
4. VOLTAGES ARE TYPICAL AND ARE SUBJECT TO NORMAL COMPONENT TOLERANCE.
5. METERS M101, M102 APPLY ONLY TO SM-75 - 8 M AND SM-75 - 8 MX MODELS.
6. ORDER REPLACEMENT PARTS BY KEPCO PART NUMBER PROVIDED IN PARTS LIST SECTION

PASS CIRCUITRY



CONTROL UNIT CONNECTOR

SOCKET (WIRING SIDE)

KEPCO LABORATORIES

FLUSHING NEW YORK

ITEM: POWER UNIT	DES. J.R.G.
	APPD 8-9-65 AK
MODEL SM-75-8M	DFTR M.R.
DWG. No. C-M00394	CHKD J.P.K.

131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • Phone (212) IN 1-7000
TWX# 212-539-6623 • Cable Address: KEPCOPOWER NEWYORK